

Edexcel Economics (A) A-level

Theme 2: The UK Economy - Performance and Policies

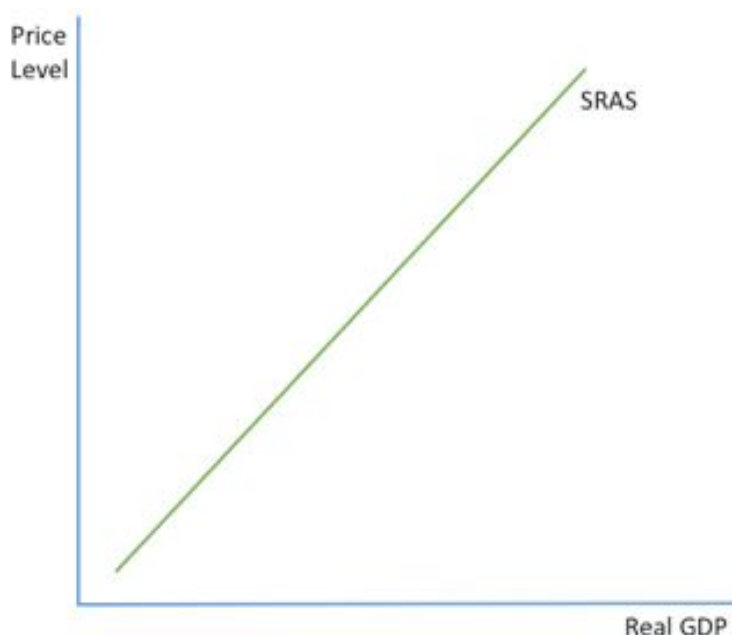
2.3 Aggregate Supply

Detailed Notes

2.3.1 The characteristics of Aggregate Supply

The AS curve:

Aggregate supply is the **volume of goods and services produced within the economy at a given price level**. It indicates the ability of an economy to produce goods and services and shows the relationship between the **real GDP** and the **average price levels**.



- This diagram shows the short-run AS curve. In the short run, if a business wants to increase production they need to increase the hours of work their employees do. They will not necessarily want to employ additional full-time, permanent staff as they would then be committed to them and have to potentially sack them if sales fell later, which would create a bad reputation and may be expensive (redundancy packages).
- Firms may decide to take on temporary workers or get present workers to work overtime or work harder, which would entail offering **some form of incentive** such as bonuses or one and a half times the basic rate of pay for overtime.
- Even though basic wage rates have stayed the same, both the **average and marginal cost of labour per good produced will rise**- the business is paying more in wages for every good they produce. This would be passed on to the consumer in terms of increased prices and there only needs to be rising prices in some sectors for the price level of the economy to rise.
- Therefore, the curve is **upward sloping** as firms are willing to supply more but only at a higher price.

- Short run AS is likely to be **elastic** (i.e. output is relatively responsive to a change in price- it changes by a bigger percentage than price). An increase in output by firms is likely to lead to an increase in costs which leads to a rise in prices as they pass these costs onto consumers. However, because the factor prices are constant, the **increase in prices will be relatively small**. If demand falls firms will react by cutting prices in an attempt to stimulate sales. However, they will not be able to achieve much of a reduction because of constant prices and an unwillingness in the short run to lay off workers.

Movement and shifts: A change in price level will lead to a movement along the curve (contraction or expansion), but a shift in the curve is caused by a range of other factors. These factors depend on whether it is the short or long run AS curve.

Relationship between long and short run:

Short run is the period of time when **at least one factor of production is fixed** and cannot be changed. On the AS curve, in the short run, money wage rates, factor prices (prices of the factor of production) and the state of technology are fixed and can't change; a change in these results in a shift of the curve. In the long run, **all factors of production are variable**. There is disagreement amongst economists on the shape of the LRAS. This is discussed in 2.3.3.

2.3.2 Short-run AS

Factors influencing short run AS:

The main cause of a shift in SRAS is a change in the cost of production, which can be caused by these three factors:

- **Changes in costs of raw materials and energy:** An increase in the cost of raw materials and energy increases the cost of production. This means the SRAS curve will shift left as it will cost more to make the same amount of goods and therefore businesses will only produce this amount of goods if prices rise. Oil prices are an important cost in determining the level of SRAS, since they affect costs for almost all businesses.
- **Changes in exchange rates:** A weaker pound will lead to an increase in the price of imports and this will cause SRAS to decrease as production becomes more expensive. If the pound becomes stronger, imports will be cheaper and so SRAS will increase. This is particularly important in the UK as we are heavily dependent on imports. The inflation the UK experienced after Brexit was caused by the fall in the pound, which pushed import prices up and led to cost-push inflation.

- **Changes in tax rates:** Taxes increase the cost of production and thus they cause a fall in SRAS, shifting it to the left. Subsidies shift it the curve right as they decrease costs.

Supply side shocks occur when there are significant changes in any of these factors.

Synoptic point:

SRAS is determined by the cost of production. If microeconomic changes, such as the price of raw materials or indirect taxes, affect enough businesses then they have macroeconomic impacts through a change in SRAS.

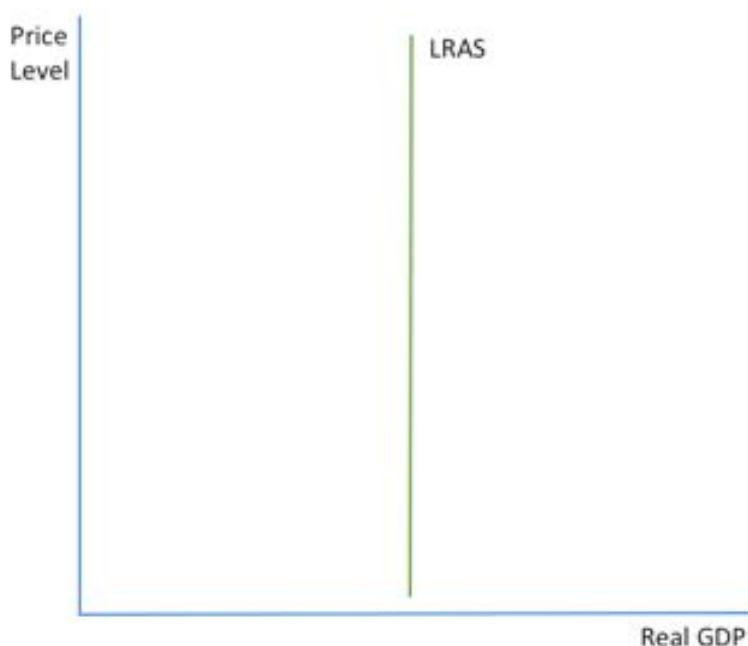
2.3.3 Long-run AS

In the short run, supply can be increased by offering overtime but in the long run **there will be a limit on how much supply can be increased**. There is a limit on the number of people and machines that are available and once labour productivity is maximised, supply cannot be increased any further. On the LRAS curve, unlike the SRAS curve, wage rates are variable and can change.

Different shapes of long run AS curve:

Classical:

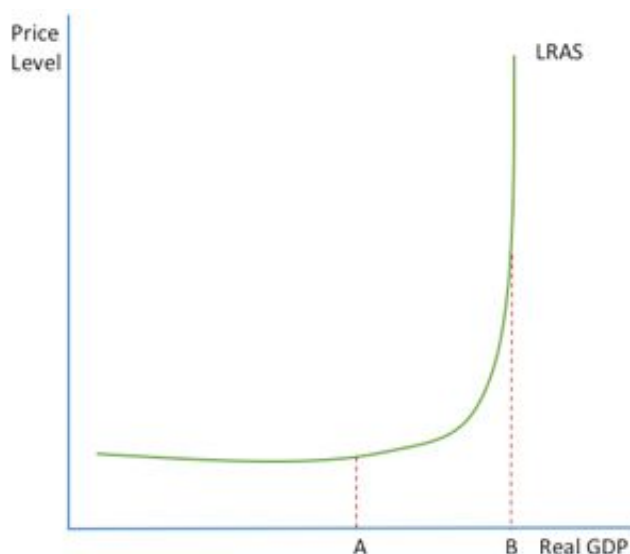
- In the long run, AS is **independent of the price level** and is **determined by the level of all factors of production and the quality of technology**. The LRAS is a measure of a country's potential output and the concept is linked to the idea of PPF; it shows the productive potential of the economy. It shows the **full capacity output** i.e. where all resources are being fully utilised, and this can be linked to output gaps between the GDP trend line and the actual GDP.
- In the short run it is possible for an economy to **exceed the maximum potential LRAS** by allowing factors of production to **work overtime** or not allow time for maintenance of machinery etc. However, this is **not possible in the long run** as machines will eventually stop and workers will want a break.
- The vertical AS curve is based on the classical view that **markets tend to correct themselves fairly quickly**. This means although an economy can be in disequilibrium at any moment in time it will naturally move towards equilibrium position where all resources are employed and the economy is producing at its productive potential; on its PPF. This means LRAS is vertical.



Keynesian: The classical view of the LRAS curve was agreed until the 1930s when Keynes expressed the view that if the economy can be in disequilibrium for 20-30 years, it can't be correct to imply the AS curve is vertical. Keynes came up with his own LRAS curve.

- At point B, the LRAS curve is **vertical as with the classical view**; this is the maximum potential output with current resources and technology, so it is the PPF.
- However, it does not stay vertical: if the curve was vertical this would mean that wages and prices fall when unemployment exists. This fall in wages thus makes it worthwhile employing people and so employment increases and the economy returns to full employment.
- Keynes thought this was true to an extent but wages tend to be '**sticky downwards**'. They will not fall below a certain level because:
 - unions are able to prevent wages falling too low
 - businesses are unwilling to risk demotivation of their staff by offering low wages
 - workers are unwilling to work unless a certain wage is offered
 - there may be full employment in one area and unemployment in another area due to lack of labour mobility
 - the minimum wage means wages cannot fall below a certain level.
- When there is high unemployment (the horizontal line on the graph- anything below point A) and a firm wants to recruit, they do not have to offer high wages to attract staff as the LRAS is **perfectly elastic** at this point. At the point between A and B, as employment rises, there are less people looking for jobs and labour is becoming **scarce enough that firms have to offer higher wages** to attract the best workers. These higher wages lead to a higher average price level. Output becomes more price

inelastic until it reaches point B, where an increase in prices no longer affects output as the PPF has been reached.



Factors influencing long run AS:

A **shift of the LRAS to the right means that economies are able to produce more** and is the same as an outward shift of the PPF. There are a number of ways that this can be achieved, most of these involve increasing productivity which means more goods can be produced with the same resources or increasing resources which allow more goods to be produced. As with SRAS, there can be **supply-side shocks** to the LRAS curve, for example a huge technological advancement or a war.

- **Technological advances:** Improvements in technology shift the LRAS curve to the right, meaning more can be produced. This is because it will speed up production, so more goods can be produced with the same amount of resources. Increased investment in technology, whether this be new technology or current technology, will increase the LRAS as it means that more goods can be produced because there are more machines etc.
- **Changes in relative productivity:** The more productive the economy is, the more that will be produced with the given resources. Productivity depends on a range of factors, such as efficiency, skill of labour and technology. Additionally, if the UK is more productive than other countries it will encourage production of that good in the UK, so investment will be increased, and this will increase LRAS.
- **Changes in education and skills:** A more skilled workforce will be more employable and work quicker and more efficiently within their jobs, so the output per worker will increase, which will shift the LRAS to the right. Education could also be used to improve the occupational mobility of labour which decreases structural

unemployment as people are able to switch to new jobs. This will ensure all resources are used efficiently.

- **Changes in government regulations:** Government regulations are able to impact LRAS through a number of different ways.
 - They can increase the size of the workforce. One way they can do this is by encouraging people to go back to work and decreasing the level of inactivity. Stay at home mums can be enticed back to work by free childcare at pre-school. Unemployment can be decreased by reducing benefits, which will encourage those living off benefits to find a job. Moreover, they can change the working age which will expand the workforce as more people are able to work. Increasing the workforce will shift LRAS because it means there are more resources in the economy and so more can be produced.
 - Additionally, government policy can increase research and development as they can offer tax breaks to businesses who invest money into research, which will encourage them to do so. If a business is able to come up with a good idea, it will increase the LRAS as it will improve productivity.
 - They could make it easier to set up businesses and increase incentives to be entrepreneurial (i.e. lower corporation tax) which would increase companies, jobs and output so increase LRAS.
 - In general, high regulation on businesses will limit LRAS as it will increase costs and the time taken to undertake tasks, which will reduce output.
- **Demographic changes and migration:** If immigration is higher than emigration, the population will grow and so therefore there will be more workers which will increase the LRAS. The value and importance of this immigration will depend on the age of the immigrants and their skills. In an ageing population or a young population, LRAS will be lower as the working population is smaller so therefore less goods can be produced. The more people who are of working age, the higher the LRAS.
- **Competition policy:** The government can promote competition between businesses and markets which will force them to improve the quality of their goods or lower prices. In order for businesses to do this and still make a profit, they have to improve their efficiency and this efficiency will mean that more goods and services can be produced, so LRAS will increase. However, less competition can sometimes be beneficial if it encourages investment and innovation. For example, copyright laws mean that businesses' new ideas can't be copied which will encourage them to do more research as they know they will be the ones who benefit in terms of higher profits.

Synoptic point:

Many of the factors which affect LRAS are microeconomic factors, for example competition policy. It is clear that microeconomic changes can have macroeconomic impacts if they are widespread enough.